Teacher education faculty have recently recognized the need for interdisciplinary preservice training that incorporates collaborative approaches, but such training is usually unworkable within the traditional university department structure. Research supports the contention that a team makes more accurate decisions than do individuals acting alone. In addition, federal regulations require that educational evaluation and placement decisions for persons with disabilities be made by an interprofessional team. The lack of team-training curricular models raises questions about the credibility and practicality of university training programs, which, by omission, may be perpetuating chronic problems in the field. Rural teachers, in particular, are often called upon to employ a wider range of skills than their formal training had encompassed. This paper presents a tri-semester curricular model that focuses on self-development as a team player and the formation of team synergy, or increased team effectiveness, in problem-solving situations. Key characteristics of the model are collaboration and role release, which taps expertise from each team member. The second semester addresses exploration of organizational cultures in the immediate life context or community setting, with additional work on mediation and conflict management. The third semester focuses primarily on application of transdisciplinary teaming in the field. Appendices outline curriculum philosophies, levels of development, goals, format, participant responsibilities, and content. (SV)
Interpersonal communication must be considered an extremely complex phenomenon in which different "levels of reality" are simultaneously present (Ricci, 1986). How these levels of reality develop and come into communicative play directly pertains to, if not defines, the aspects of pragmatic language. When breakdowns in interpersonal communication occur, it has been considered expedient to focus attention on pragmatic aspects of language usually involving only two persons as the grounding interactive framework.

An alternative model of communication emanating from the study of family interaction dynamics views interaction from a systems perspective (Galvin & Brommel, cited in Lane & Molyneaux, 1992) which sees communication affecting relationships which affects the communication that occurs. This reciprocal ripple effect has also been documented in educational systems' activities as student special needs committees as well (Gerke, 1993; Gilliam, 1979; Pfeiffer, 1980; Yoshida, Fenton, Maxwell, & Kaufman, 1978). Implicit in these findings and acknowledging the everyday experiences of committees or teams at work for a plethora of reasons across a variety of settings, it appears particularly salient to evaluate team interaction from more than a grounding dyadic perspective. Ricci (1986) believes that in team interaction, the receiver is not well defined and by focusing on the two who appear to be the main communicators (the apparent source and receiver), we risk slipping into dyadic analysis. This tends to not only negate the interconnected strands of exchange occurring between more than two persons at a time but also dismisses the team as having a life of its own and functioning as the receiver itself. Consequently, team synergy, which is an essential characteristic of effective transdisciplinary teams (TDT's) is not established.

Research has supported the contention that a team makes more accurate decisions than do individuals acting alone (Bailey, 1984; Pfeiffer, 1982; Vautour cited in Pfeiffer, 1980) and regulations require that evaluation and placement procedures related to the Individuals with Disabilities in Education Act be made by an interprofessional team or group of persons. Problems inherent in the teaming process continue to remain unsolved. Increasing parental and regular education involvement in teaming (Pfeiffer, 1980); the lack of consultative/collaborative in-house team training practices (Bailey, 1984; Fleming & Fleming, 1983; Huebner & Sachs-Wise, 1992; Pfeiffer, 1980); and a persistent shortage and low retention rate of special education and support personnel in rural education (Helge, 1981, 1983, 1985; Theobald, 1991) are the bane of professional educators in the field.

At the preservice and training levels, Roth (1988) has made an appeal to university training programs to provide educators at the preservice level to use and incorporate collaborative approaches. He states that "teacher education faculty have recently recognized the need for interdisciplinary/transdisciplinary preservice training. Few models have been presented that are workable within the traditionally autonomous university department structure" (p.22). Implicit in resolving these concerns, university faculty must actively shift both vertically and horizontally, redefining professional turf boundaries while changing stratified teaching parameters considered sacrosanct, i.e. mutable and insular (Pfeiffer, 1980; Westby, in press).
The lack of a conceptual team model/s for underpinning the analysis of interaction to improve team functioning (Bailey, 1984), the paucity of methods developed to analyze complex pragmatic interactional processes within dysfunctional systems (Bailey, 1984; Ricci, 1986), the value and clarification of critical phases within an interprofessional - transdisciplinary teaming process (Bailey, 1984; Lyon & Lyon, 1980; and Maher & Hawryluk, 1983), and the paucity of specific team training curricular models (Bailey, 1984; Gerke, 1992) are a number of burgeoning problems that continue to adversely affect team functioning. These problems pose questions concerning the credibility and practicality of university training programs, which seemingly by omission, maybe perpetuating chronic problems in the field. These unresolved teaming problems put rural educators in double jeopardy. To frequently, rural teachers are required to employ a wider range of skills than their formal training had encompassed to meet the needs of children whom they serve (Helge, 1981, 1983; Marrs, 1984).

Universities offer teacher education programs through a maze of state regulations for program approval and teacher certification that are always reflective of current and past practices in education, not future trends or directions (Lilly, 1989). Consequently, university training programs tend to follow rather than lead the field of practice in practice. After an extensive review of literature on one aspect of pragmatic language, the semantics of prejudice on campus at all levels and departments. Westby (in press) precipitated by on campus events, concludes the egalitarian assumption of universities as an arena for diverse ideas and cultural expansion is inaccurate, for faculty and students are seldom prepared to discuss issues of prejudice and discrimination, a matter of different realities in an interactive organizational culture and communication context.

In addition, Westby asserts a need for a responsible curriculum to embrace prejudical issues and enable students to deal more effectively with these issues in their workplace, for as she came to understand, it is difficult to recognize and identify subtle instances of prejudice in social interactions particularly in the rapid and complex dialogue characteristic of teams. A precondition for self-corrective behavior to occur is the participant's knowledge base being beyond a simple awareness which, to a large degree, shifts responsibility to professional trainers and the integrity and comprehensiveness of their training program.

This is especially the case then, as it pertains to a university faculty's and student's interprofessional behavior and the study of the interaction teaming component of the overall transdisciplinary curricular program. Pfeiffer (1980) and Huebner and Sachs Wise (1992) suggest that students of educational administration, counseling, regular and special education, school psychology, and social work, need to be exposed to professors who model cooperation and interchange among disciplines, as well as to be provided with courses and field experiences that focus on interprofessional functioning. Beginning teachers would be in a better position to make appropriate decisions about the values indigenous to working in a rural culture given at least a modicum academic exposure.

While literature on interprofessional teaming in relation to traditional group processing techniques which focuses almost exclusively on relational team aspects and intrapersonal problem-solving is relatively abundant (Blumberg, 1974; Sadker & Sadker, cited in Lane & Molyneaux, 1992; Westby, cited in Clark, in press)), little research has been offered on the pragmatics of analyzing the various developmental stages of effective teaming emphasizing interprofessional and transdisciplinary strategies for team self-improvement particularly at teacher training levels. Gerke (1993) has developed a tri-semester curricular program that incorporates individual and team development and respective intervention strategies, emphasizing role release across a variety of learning scenarios and applicability in several fields (Appendices. A. & B.).
Just as teams are mandated to individualize educational plans, we should also seek to individualize efforts to facilitate positive, effective, and efficient team functioning. The adoption of a proposed teaming model together with the interaction evaluation method based on an expanded communication model of pragmatic language inherent in teams looms critical and timely. This is a comprehensive TDT curricular model that offers an entrance level plan to develop team maintenance, as well as building substantive and procedural team development activities.

The core of the teaming model in practice is self development as a team player. Awareness, acceptance, and an action plan to effect change towards teaming as a culture is the next step in team development. When a team functions as a single entity, it has reached a level known as team synergy, i.e., no one member is as effective as the entire team effort in a problem-solving situation. Exploration of organizational cultures include the immediate life context and/or community setting as a component of continuous study in the second seminar's sequence with additional work on mediation and conflict management. The third seminar focuses primarily on application of TDT in the field as defined by respective teams. The underlying purpose of this seminar is to walk the talk.

One of the problems in both individual and team development is the selecting instrumentation/methodology for synthesizing information across self, team interaction, and content as the team's task focal point. Individual and team development are a composite of the work of Tuckman and Jensen's (1977) stages of forming, storming, norming, and performing, adaptation's of Beckhart's (1972) eight stages model for team building, Bailey's (1984) tri-axial developmental team model, and Lafferty's (1989) Human Synergistic (HI) Team building model and materials. There are a variety of individual and team building programs available, however, the Human Synergistic materials offered a simple, consistent, sensible, operational orientation. The HI system integrates self-improvement and team building activities/analysis, organizational culture, and conflict management activities and analysis, across focal problem-solving scenarios. In addition these materials include a prescriptive methodology to affect individual, team, and organizational change.

The key and distinguishing characteristics of the transdisciplinary teaming model are collaboration and role release. These concepts are operationalized in the TDT tri-semester training model using the HI materials on a continuum from self to team synergy. Specifically, role release presents team members with an opportunity to develop assessment and intervention knowledge, skills, and competencies through a reciprocal learning process established by the team. Essentially, role release taps expertise, i.e., general knowledge, informational skills, and performance competencies, from each team member.

The curricular TDT training model allows for flexibility in specific task activities. In order to build general knowledge (GI), increase critical content (task) information skills (IS), and accomplish performance competencies (PC) (to affect role release) simply chose content areas that have been enumerated in literature and in part above as chronically problematic to rural settings. An outstanding resource is the publication of the American Council on Rural Special Education, the Rural Special Education Quarterly (RSEQ).

Initially, the articles in the RSEQ promote cultural awareness of the rural community and provide the database for GI,IS, and PC's while building teaming skills simultaneously. A perusal of several of the journals will provide you with a tentative list of articles from which information could be formatted to utilize in a team building scenario.
Examples: From respective issues of the RSEQ.


Use the 2 tables in the article by having student rank order both the desired knowledge and Abilities Competencies as perceived by rural directors of Special Education by age of child served. First, students rank individually, then rank as team. The "correct" or "true" rank is that found in the article. By adapting the synergistic scoring method for teaming scenarios, net gain or lost of the team can be measured for team synergy. Simultaneously, students individually take the Group Styles Inventory (GSI - HI) for team functioning appraisal and feedback.


In this article one could use either the tables or respective parts of the text to develop a true or false knowledge of future special education teachers perceptions of rural teaching environments. Again, students score individually, then as a team, then a GSI and discussion. The article is the "truth" of what constitutes the accuracy for team synergy.

Variety of content with desired outcomes are virtually at the level of commitment and professional updating of oneself on the current trends, facts, dilemmas in the rural special education field. The cost of the Train the Trainers workshop for HI materials and use is not prohibitive given their usefulness. In addition, the initial costs of student consumables is the same or less than the cost of texts. The use of the library, with HI materials or others that you wish to incorporate, can provide an ongoing current rural focus to your team building curriculum.
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Appendix A

Transdisciplinary Teaming Seminars:
TDT overview: Individual & Team Development
Seminar I

Philosophies
Transdisciplinary Teaming involves two elements that other teaming models do not:

1. Cross-training of disciplines through the ROLE RELEASE, i.e., the authorization by one discipline for team members from other disciplines to present specific information and perform specific skills through the use of systematic teaching-learning experiences which cross disciplinary boundaries in the areas of general information (GI) or knowledge sharing, information skill (IS) or skill development, and performance competence (PC) or behavior change; and

2. COLLABORATION, i.e., the interactive process that enables professionals from different disciplines to work together in managing mutually defined problems so as to reach outcomes that are enhanced or different from the outcomes that any individual or profession would produce independently, in other words, synergy.

Special Education and Communication Disorders share many professional similarities. However, differences that make them unique professions also exist. The purpose of TDT is to explore the similarities among differences, define differences, and educate others about the differences so that TD team members can operate as a "Unit of One" within the legal and ethical guidelines of each discipline to provide quality education within the department and quality service to special needs clients and families.

Transdisciplinary Teaming: Levels of Development

Level I: SPED/CD faculty and doctoral students
Seminar I - Overview: Individual & Team Development; TDT comprehension and Reciprocal teaching;
Site: classroom.

Level II: SPED/CD faculty (on a needs basis) and doctoral students, clients and families;
Seminar II - Evaluation, Conflict Management, & Organizational Culture: TDT comprehension, reciprocal teaching, role release, managing conflict and agreement; the maze of organizational culture development (GI + IS), PC (perform a new skill);
Site: classroom, Comprehensive Clinic, Schools

Level III: SPED/CD faculty (on a needs basis) and doctoral students, clients families, community
Seminar III - Research and Development: applications emphasis, case management: (GI + IS + PC)
Site: classroom, Comp Clinic, Schools, University departments.

Both individuals and teams will develop greater sensitivities and insights on both a personal and profession level relative to team membership by using specific strategies and assessment instrumentation.
Teams will develop topics and subsequent GI and IS tasks by using the TEC (target, Expand, and Contract) model and related strategies, such as, lateral thinking, synectics,...and so on.

TEC model incorporates the following:
- Target/Task: brainstorm the specific topics, GI, or IS, to be presented;
- Expand/Explore: brainstorm ways of presenting topics, GI, or IS;
- Contract/Conclude: narrow ideas to final plan for team presentation.

TDT Seminar I Goals

General
- to train and maintain a SPED/CD departmental faculty in the theory and practice of TDT.
- to develop the TDT competency and use of ROLE RELEASE and COLLABORATION in SPED/CD faculty.
- to use TDT faculty to train SPED/CD doctoral students in the theory and practice of TDT.
- to develop the TDT competency and use of ROLE RELEASE and COLLABORATION in SPED/CD doctoral students.

Specific
- to enhance self-awareness by assessing personal and team thinking and behavioral styles.

Specific cont'd:
- to use feedback from others constructively, to promote growth and change.
- to develop a method of understanding the behavioral implications of interaction styles in a group problem-solving situation.
- to develop a strategy for building on strengths and improving developmental team needs areas.
- to improve consensus decision making and team problem-solving skills

Outcomes

- SPED/CD faculty who are knowledgeable and skilled in TDT, specifically ROLE RELEASE.
- doctoral students who are knowledgeable and skilled in TDT, specifically ROLE RELEASE, and who will enter the work force and facilitate the development of TDT in a variety of worksites.
- a unique doctoral program with emphasis on flexibility.
- implementation of a Comprehensive Clinic as a training laboratory and community service agency to provide wholistic, quality service to infants, toddlers, youth, and adults who have special communication/learning needs.
- a training site with a multicultural orientation where respective personnel will be better able to serve their unique populations.

Format

1. The seminar is divided into 15 modules: Theories of Teaming and Team communication, 1 module; Individual Life-styles Development 2 modules; Individual and Team Development competencies - ROLE RELEASE & COLLABORATION Competencies 9 modules; Case Staffing and Analysis 1 module; Individual proposals 2 modules.

2. The first module will focus on the concepts and skills involved in TDT and emphasize the relative importance of completing the self and team development inventories and alternatives (*)other than Human Synergistics.
3. The second module will focus primarily on clarification of the LSI-1 and overview of LSI-2 with respective individual and team self-report evaluation instrumentation (*).

4. SPED/CD faculty and doctoral students will be divided into teams and will participate in Team Activities 1, 2, and 3 with accompanying GSI instrumentation.

5. Each Team will select 8 professional topics (4 SPED & 4 CD) to develop for ROLE RELEASE cross-training with 1 Team Development Status assessment (GSI). Each team will be responsible for developing 3 topics and will make a 1 1/2 hr. class presentation. Each presentation will include GI and IS relative to the topic.

6. Each doctoral student and team will complete a LSI-2 self-report inventory followed with individual and class debriefing / discussion.

7. One 60 minute case staffing will be conducted by each team. The staffing will be analyzed and critiqued during a later team presentation detailing the development of the team’s process.

Responsibilities of Participants:

Faculty:
1. be an active participant in the TDT meetings and case staffing;
2. complete the required self-development inventories.

Doctoral Students:
1. be an active participant in the TDT meetings and case staffing;
2. complete the required self-development inventories.
3. document TDT self-development using a portfolio approach. Include individual and team evaluation results, e.g., LSI-1 & 2, LSI-PC, GSI’s, other self and team-development inventories, etc., and a 2 page-typed (max) summary on your individual and team development respectively.
4. develop a brief research proposal relative to TDT.
## Appendix B

### Course Calendar

<table>
<thead>
<tr>
<th>Session</th>
<th>Content Focus</th>
</tr>
</thead>
<tbody>
<tr>
<td>1*</td>
<td>Overview of the <strong>TDT</strong> process and the three <strong>TDT</strong> seminars; focus of seminar I; self-report inventories: assignment, complete 4 inventories to include <strong>LSI-1</strong> * (other self-report) additional/alternative activities</td>
</tr>
<tr>
<td>2</td>
<td>Teaming Models; defining characteristics; TQM; stages of team development: qualia vs quantum questions; change (SUD'S-level); self-development inventories</td>
</tr>
<tr>
<td>3*</td>
<td>Dimensions of team communication: the N-person game; N-adic communication - A model for Role Release; <strong>LSI-1</strong> debriefing and discussion; <strong>LSI-1</strong>: Prescription for Change (<strong>LSI-1 PC</strong>); other self-development instrumentation used; overview team synergy and development activities with respective materials. * RSEQ Nos.</td>
</tr>
<tr>
<td>4*</td>
<td>Announce teams; team membership rationale; introduction to Team Activity 1: <strong>Meeting Effectiveness Situation</strong> (<strong>MES</strong>) and <strong>Group Styles Inventory</strong> (<strong>GSI</strong> &amp; team <strong>GSI</strong> circumplex); other team development instrumentation used; class discussion on team synergy. * RSEQ Nos.</td>
</tr>
<tr>
<td>5*</td>
<td>Team Activity 2: Simulation - <strong>Desert Survival</strong> or <strong>Cascades</strong> and <strong>GSI</strong> &amp; team <strong>GSI</strong> circumplex; other team development instrumentation used; class discussion on team synergy; brainstorm for 8 TDT (4 SPED &amp; 4 CD) topics. * RSEQ Nos.</td>
</tr>
<tr>
<td>6*</td>
<td>Team Activity 3: Simulation - <strong>Jungle Survival</strong> and <strong>GSI</strong> with team <strong>GSI</strong> circumplex; other team development instrumentation used; class discussion on team synergy; midterm large group discussion and feedback session. * RSEQ Nos.</td>
</tr>
<tr>
<td>7*</td>
<td>Teams develop SPED and CD topic 1 respectively as assigned; each topic includes: general information, information skills, and performance competencies; <strong>GSI</strong> optional: * same as 6.</td>
</tr>
<tr>
<td>8</td>
<td>Presentation SPED 1 assigned team 1 1/2 hours; Presentation CD 1 assigned team 1 1/2 hours; discussion</td>
</tr>
<tr>
<td>9*</td>
<td>Teams develop SPED and CD topic 2 respectively as assigned; each topic includes: general information, information skills, and performance competencies; <strong>GSI</strong> optional if done on topic 1; * same as session 6</td>
</tr>
<tr>
<td>10</td>
<td>Presentation SPED 2 assigned team 1 1/2 hours; Presentation CD 2 assigned team 1 1/2 hours; discussion</td>
</tr>
<tr>
<td>11*</td>
<td>Teams develop SPED and CD topic 3 respectively as assigned; each topic includes: general information, information skills, and performance competencies; <strong>GSI</strong> optional if done on topics 1 or 2; * same as session 6</td>
</tr>
<tr>
<td>12</td>
<td>Presentation SPED 3 assigned team 1 1/2 hours; Presentation CD 3 assigned team 1 1/2 hours; discussion</td>
</tr>
</tbody>
</table>
13 Teams will respectively generate 1 Case Staffing; each staffing will last approximately 60 mins. and will be self-critiqued during a later presentation.

14 Each team will make an approx. 1 1/2 hr. presentation describing the development of the TDT competence of its members using examples from Team Activities (a portfolio assessment approach).

15 Each doctoral student will develop a research proposal relative to TDT and make a brief presentation (20-30 mins. with discussion).

16 Each doctoral student will develop a research proposal relative and to make a brief presentation (20-30 mins.); final wrap-up!